

REMARKS

Claims 1-18 are pending in this application, of which claim 1 has been amended and claims 3-18 have been withdrawn from consideration. No new claims have been added. It is respectfully submitted that this response is fully responsive to the outstanding Action dated January 11, 2002.

35 USC §112, Second Paragraph Rejection:

Claims 1 and 2 stand rejected under 35 USC §112, second paragraph, due to the Examiner's contention that "In claim 1, line 5, the phrase 'detecting section' is vague. In addition, the examiner sets forth the following questions. "What port and where is this 'detecting section' located?" "Is the 'detecting section' part of the transducer or the weight portion?"

This rejection is respectfully traversed.

With regard to the first embodiment of the present invention, discussed on pages 10-12 with reference to Figs. 2 and 3, it is respectfully submitted that output electrode 10a for drawing the output of the vibrator 11 constitutes the detecting section. That is, on page 12, lines 3-4, the present specification calls for "the acceleration can be detected by sensing this potential difference by using the output electrode 10a."

Moreover, claim 1, as amended, clearly calls for a detecting section which is installed on the base. Thus, the location of the detecting section is clearly recited in claim 1 as amended.

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Accordingly, the withdrawal of the rejection of claim 1 under §112, second paragraph, is solicited.

As To The Merits

While the Examiner has withdrawn his previous rejection based on **Kaneko**, the Examiner relies on the newly cited reference of **Ohnishi et al.** (U.S. Patent No. 5,708,320) in setting forth the following new rejection:

claims 1-2 stand rejected under 35 USC §102(b) as being anticipated by **Ohnishi et al.**

This rejection is respectfully traversed.

The Examiner's rejection based on that the constitution as well as the effect of vibrator 30 of **Ohnishi et al.** is clearly different than that of vibrator 11 of the present invention. In the first place, **Ohnishi et al.** relates to an angular velocity sensor, whereas the present invention relates to an acceleration sensor. In addition, **Ohnishi et al.**'s gyroscope which is always in an operating state detects angular velocity, whereas the acceleration sensor of the present invention which is usually in a static state changes its state into an operating state to detect acceleration. To be more specific, according to **Ohnishi et al.**, angular velocity is detected on the basis of such a constitution that force of expansion and contraction in the Y direction is repeatedly provided to a vibrator 30 by piezoelectric devices 33 (driving means) continuously, even during the period when no angular

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velocity is generated. By contrast, such force is not always exerted in the present invention. According to the invention, acceleration is detected by sensing torsion vibration exerted only when acceleration is generated.

In view of the aforementioned amendments and accompanying remarks, claims 1 and 2, as amended, are in condition for allowance, which action, at an early date, is requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosure: Version With Markings To Show Changes Made

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Thrice amended) An acceleration sensor for detecting acceleration, comprising:
a base;
a transducer that is supported at the base;
a weight portion that is connected to the transducer, and supported at a position different from the center of gravity of the transducer and the weight portion itself; and
a detecting section which is installed on the base and detects the amount of characteristic corresponding to a torsion of the transducer caused by an angular moment centered on the supporting position of the weight portion upon application of acceleration in one direction to the transducer and the weight portion,
wherein a face of the transducer is made flush with a face of the weight portion.